



**Final
Hanford Site Solid
(Radioactive and Hazardous)
Waste Program
Environmental Impact
Statement
Richland, Washington**

**Volume II
Appendixes A through O**



U.S. Department of Energy
Richland Operations Office
Richland, Washington

Cover Photographs:

- 1. Hanford workers preparing to retrieve and repackage TRU waste drums**
- 2. Drums of transuranic waste in a retrievable storage trench**
- 3. A partial aerial view of Hanford's Low Level Burial Grounds**
- 4. Waste Receiving and Processing Facility inspection and repackaging glove boxes**
- 5. Hanford's Mixed Low-Level Waste disposal facility**
- 6. Placing TRU waste into a TRUPACT shipping container for shipment to the Waste Isolation Pilot Plant**

RESPONSIBLE AGENCY:

U.S. Department of Energy, Richland Operations Office

COVER SHEET**TITLE:**

Final Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement, Richland, Benton County, Washington (DOE/EIS-0286F)

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ABSTRACT:

The Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement (HSW EIS) provides environmental and technical information concerning U.S. Department of Energy (DOE) proposed waste management practices at the Hanford Site. The HSW EIS updates analyses of environmental consequences from previous documents and provides evaluations for activities that may be implemented consistent with the Waste Management Programmatic Environmental Impact Statement (WM PEIS) Records of Decision (RODs). Waste types considered in the HSW EIS include operational low-level radioactive waste (LLW), mixed low-level waste (MLLW), immobilized low-activity waste (ILAW), and transuranic (TRU) waste (including TRU mixed waste). MLLW contains chemically hazardous components in addition to radionuclides. Alternatives for management of these wastes at the Hanford Site, including the alternative of No Action, are analyzed in detail. The LLW, MLLW, and TRU waste alternatives are evaluated for a range of waste volumes, representing quantities of waste that could be managed at the Hanford Site. A single maximum forecast volume is evaluated for ILAW. The No Action Alternative considers continuation of ongoing waste management practices at the Hanford Site and ceasing some operations when the limits of existing capabilities are reached. The No Action Alternative provides for continued storage of some waste types. The other alternatives evaluate expanded waste management practices including treatment and disposal of most wastes. The potential environmental consequences of the alternatives are generally similar. The major differences occur with respect to the consequences of disposal versus continued storage and with respect to the range of waste volumes managed under the alternatives. DOE's preferred alternative is to dispose of LLW, MLLW, and ILAW in a single, modular, lined facility near PUREX on Hanford's Central Plateau; to treat MLLW using a combination of onsite and offsite facilities; and to certify TRU waste onsite using a combination of existing, upgraded, and mobile facilities. DOE issued the Notice of Intent to prepare the HSW EIS on October 27, 1997, and held public meetings during the scoping period that extended through January 30, 1998. In April 2002, DOE issued the initial draft of the EIS. During the public comment period that extended from May through August 2002, DOE received numerous comments from regulators, tribal nations, and other stakeholders. In March 2003, DOE issued a revised draft of the HSW EIS to address those comments, and to incorporate disposal of ILAW and other alternatives that had been under consideration since the first draft was published. Comments on the revised draft were received from April 11 through June 11, 2003. This final EIS responds to comments on the revised draft and includes updated analyses to incorporate information developed since the revised draft was published. DOE will publish the ROD(s) in the *Federal Register* no sooner than 30 days after publication of the Environmental Protection Agency's Notice of Availability of the final HSW EIS.

Contents

Appendix A	Public Scoping and Review Comments and DOE Responses.....	A.1
Pt 1	Public Scoping Comments and Responses for the ILAW SEIS.....	A.1
Pt 2	Public Scoping Comments and Responses for the HSW EIS	A.20
A.1	DOE Programmatic/Nationwide Analysis	A.21
	A.1.1 Coordination with Other Federal Reports, Environmental Impact, and DOE Policy Statements.....	A.21
	A.1.2 Nationwide Impact Comparisons and Equity Issues.....	A.23
A.2	Alternatives and Activities Analyzed in the HSW EIS	A.24
	A.2.1 Alternative Options	A.25
	A.2.1.2 Use of Commercial or Offsite Disposal Facilities	A.26
	A.2.1.3 Alternative Actions and Emerging Technologies	A.27
	A.2.2 Recommended Alternative Analyses	A.29
A.3	Waste Types and Volumes	A.30
A.4	Environmental Consequences and Analysis Methods.....	A.32
A.5	Public Involvement and Government Agency Consultations.....	A.34
A.6	References	A.35
Appendix B	Detailed Alternative Descriptions, Assumptions, Waste Volumes, and Waste Stream Flowsheets.....	B.1
B.1	Introduction	B.1
B.2	Waste Stream Numbers	B.1
B.3	HSW EIS Waste Processing Assumptions	B.3
B.4	Waste Volumes	B.9
B.5	Radionuclide Inventories.....	B.15
B.6	Waste Stream Flowsheets.....	B.49
B.7	References	B.102
Appendix C	Description of Waste Volumes for the Hanford Site Solid (Radioactive and Hazardous) Waste Program EIS.....	C.1
C.1	Volume Identification, Review, and Selection Methodology	C.2
C.2	Low-Level Waste	C.5
C.3	Mixed Low-Level Waste.....	C.7
C.4	Transuranic Waste.....	C.9
C.5	Waste Treatment Plant Wastes.....	C.11
C.6	References	C.12
Appendix D	Supplemental Information on the Low Level Burial Grounds, Environmental Restoration Disposal Facility, Borrow Pits, Trench Liners, and Disposal Facility Barriers	D.1
D.1	Low Level Burial Grounds.....	D.1
	D.1.1 200 East Area Burial Grounds	D.1
	D.1.2 200 West Area Burial Grounds.....	D.4
D.2	Environmental Restoration Disposal Facility.....	D.11
D.3	Borrow Pit Resource Excavation	D.12
D.4	Liner Options for Disposal Facilities	D.16

D.5	Barrier Options	D.17
D.5.1	Hanford Barrier	D.18
D.5.2	Standard RCRA Subtitle C Barrier	D.18
D.5.3	Modified RCRA Subtitle D Barrier	D.20
D.5.4	Conceptual Cover Barrier with Bentonite Mix	D.21
D.6	References	D.22
Appendix E	Air Quality Analysis.....	E.1
E.1	Combustion Engine Emissions.....	E.13
E.2	Fugitive Dust.....	E.14
E.3	Calculating Maximum Air Quality Impacts	E.18
E.4	Clean Air Act General Conformity Review	E.25
E.5	References	E.26
Appendix F	Methods for Evaluating Impacts on Health from Radionuclides and Chemicals.....	F.1
F.1	Normal Operation Impact Assessment Methods	F.1
F.1.1	Pollutant Releases to the Atmosphere.....	F.2
F.1.1.1	Release Fractions for the Waste Receiving and Processing Facility	F.15
F.1.1.2	Release Fractions for the Existing T Plant Complex	F.17
F.1.1.3	The New Waste Processing Facility and Modified T Plant Complex	F.21
F.1.1.4	Pulse Drier Operation.....	F.24
F.1.2	Release Point Characteristics	F.26
F.1.3	Atmospheric Transport	F.27
F.1.4	Exposure Scenarios	F.32
F.1.4.1	Industrial Scenario	F.33
F.1.4.2	Resident Gardener Scenario	F.34
F.1.4.3	Soil (Air or Irrigation Water Deposition) Transport Medium.....	F.36
F.1.4.4	Air Transport Medium	F.38
F.1.4.5	Waterborne Transport Medium.....	F.38
F.1.5	Soil Accumulation Model	F.39
F.1.5.1	Evaluation of Distribution Coefficient for Organic Chemicals	F.41
F.1.5.2	Evaluation of Distribution Coefficients for Radionuclides and Inorganic Chemicals.....	F.42
F.1.6	Health Impacts	F.43
F.1.7	Basis for Radiological Health Consequences	F.44
F.1.8	Comparison of Radiation Risk Results for Children—Estimated Using Federal Guidance Reports 11 and 13.....	F.45
F.2	Accident Impact Assessment Methods.....	F.47
F.2.1	Adjustment Method.....	F.48
F.2.2	Accident Frequency	F.49
F.2.3	Non-Radiological Impact Endpoints.....	F.50
F.2.3.1	Impacts from Industrial Accidents	F.51
F.3	Intruder Impact Assessment Methods	F.51
F.3.1	Human Intrusion Exposure Scenarios	F.52

	F.3.2 Radiological Analysis	F.54
F.4	Impacts from Waterborne Pathways	F.55
F.5	Potential Health Impacts of West Valley TRU Wastes Processed or Stored at Hanford.....	F.183
	F.5.1 Worker Health Impacts	F.184
	F.5.2 Routine Atmospheric Release – Public Health Impacts.....	F.184
F.6	References	F.185
Appendix G	Groundwater Quality Impacts	G.1
G.1	Methodology and Approach.....	G.3
	G.1.1 Lines of Analysis	G.3
	G.1.2 Overall Analytical Approach	G.4
	G.1.3 Source-Term Release	G.7
	G.1.3.1 Constituent Grouping and Screening	G.8
	G.1.3.2 Source Inventories.....	G.12
	G.1.3.3 Release Models	G.12
	G.1.4 Vadose Zone Modeling.....	G.20
	G.1.4.1 Stratigraphy	G.21
	G.1.4.2 Hydraulic Properties.....	G.21
	G.1.4.3 Recharge Rates.....	G.24
	G.1.4.4 Distribution Coefficients.....	G.24
	G.1.4.5 Vadose Zone Model Implementation	G.25
	G.1.5 Groundwater Modeling	G.26
	G.1.5.1 Conceptual Model.....	G.26
	G.1.5.2 Simulation of Post-Closure Flow Conditions.....	G.36
	G.1.5.3 Simulation of Unit Releases.....	G.39
G.2	Potential Groundwater Quality Impact Results.....	G.58
	G.2.1 Alternative Group A.....	G.58
	G.2.1.1 Wastes Disposed of Before 1996	G.59
	G.2.1.2 Wastes Disposed of After 1995.....	G.60
	G.2.2 Alternative Group B.....	G.61
	G.2.2.1 Wastes Disposed of Before 1996	G.62
	G.2.2.2 Wastes Disposed of After 1995.....	G.62
	G.2.3 Alternative Group C.....	G.63
	G.2.3.1 Wastes Disposed of Before 1996	G.64
	G.2.3.2 Wastes Disposed of After 1995.....	G.64
	G.2.4 Alternative Group D ₁	G.64
	G.2.4.1 Wastes Disposed of Before 1996	G.65
	G.2.4.2 Wastes Disposed of After 1995.....	G.65
	G.2.5 Alternative Group D ₂	G.66
	G.2.5.1 Wastes Disposed of Before 1996	G.67
	G.2.5.2 Wastes Disposed of After 1995.....	G.67
	G.2.6 Alternative Group D ₃	G.68
	G.2.6.1 Wastes Disposed of Before 1996	G.69
	G.2.6.2 Wastes Disposed of After 1995.....	G.69
	G.2.7 Alternative Group E ₁	G.70
	G.2.7.1 Wastes Disposed of Before 1996	G.71
	G.2.7.2 Wastes Disposed of After 1995.....	G.71

G.2.8	Alternative Group E ₂	G.73
G.2.8.1	Wastes Disposed of Before 1996	G.73
G.2.8.2	Wastes Disposed of After 1995.....	G.73
G.2.9	Alternative Group E ₃	G.74
G.2.9.1	Wastes Disposed of Before 1996	G.74
G.2.9.2	Wastes Disposed of After 1995.....	G.74
G.2.10	No Action Alternative	G.75
G.2.10.1	Wastes Disposed of Before 1996	G.76
G.2.10.2	Wastes Disposed of After 1995.....	G.76
G.3	Use of ILAW Performance Assessment Calculations in Potential HSW EIS Long-Term Groundwater Quality and Human Health Impacts.....	G.266
G.3.1	Range of Waste Form and Engineering Performance Evaluated in the 2001 ILAW Performance Assessment	G.266
G.3.2	Additional Planned Analyses of Waste Disposal System Performance.....	G.268
G.3.3	Specific Scaling of ILAW PA Results for Use in the Analysis	G.269
G.3.3.1	Scaling for Estimated Inventory.....	G.269
G.3.3.2	Scaling for Alternative HSW EIS Disposal Site Locations	G.269
G.4	Effect of Changing Assumptions on Long-Term Cover System Performance	G.272
G.5	Potential Groundwater Quality Impacts at Low-Level Waste Management Area Boundaries for Selected Alternatives	G.275
G.5.1	Local-Scale Lines of Analysis	G.276
G.5.2	Source-Term Release and Vadose Zone Transport.....	G.277
G.5.3	Unit-Release Calculations and Transport in Groundwater	G.277
G.5.4	Summary of Results	G.283
G.5.4.1	Alternative Group D ₁	G.293
G.5.4.2	Alternative Group D ₂	G.296
G.5.4.3	Alternative Group D ₃	G.297
G.5.4.4	Summary of Ratios to Benchmark MCLs for Technetium-99 and Iodine-129	G.297
G.6	Potential Groundwater Quality Impacts from Hazardous Chemicals in Pre-1988 Wastes.....	G.301
G.6.1	Inventory Estimates.....	G.301
G.6.2	Contaminant Group and Screening Analysis	G.302
G.6.3	Analysis Methods and Other Key Assumptions	G.303
G.6.4	Summary of Results	G.306
G.7	References	G.319
Appendix H	Traffic and Transportation.....	H.1
H.1	Description of Methods	H.2
H.1.1	Radiological Impact Analysis Methodology.....	H.2
H.1.2	Physical (Non-Radiological) Incident-Free Risks	H.6
H.1.3	Non-Radiological Accident Risks in Transit	H.6
H.1.4	Hazardous Chemical Impact Analysis	H.7
H.2	Solid Waste Shipping Data.....	H.8
H.2.1	Onsite Shipping Data	H.9
H.2.2	Offsite Shipping Data.....	H.18
H.2.3	Accident Risk Input Data.....	H.23

H.3	Results of Transportation Impact Analysis	H.29
H.3.1	Results of Onsite Transportation Impact Analysis.....	H.30
H.3.1.1	Alternative Group A.....	H.30
H.3.1.2	Alternative Group B.....	H.30
H.3.1.3	Alternative Group C.....	H.30
H.3.1.4	Alternative Group D.....	H.31
H.3.1.5	Alternative Group E.....	H.31
H.3.1.6	No Action Alternative.....	H.31
H.3.1.7	Summary of Transportation Impacts for the Hanford Only Waste Volume.....	H.38
H.3.2	Results of Offsite Transportation Impact Analysis.....	H.40
H.3.2.1	Potential Population Radiological Impacts of Offsite Shipments.....	H.41
H.3.2.2	Potential Non-Radiological Impacts of Offsite Shipments	H.44
H.3.2.3	Results of the Maximally Exposed Individual Impact Analysis ..	H.47
H.3.3	Summary of Potential Impacts of Onsite and Offsite Waste Shipments.....	H.49
H.3.3.1	Hanford Solid Waste Management Lifecycle Transportation Impacts.....	H.49
H.3.3.2	Sensitivity Studies.....	H.56
H.4	Impacts of Transporting Construction and Capping Materials	H.62
H.5	Impacts on Traffic	H.66
H.6	Transportation Impacts of Offsite Shipments Within Washington and Oregon.....	H.67
H.6.1	Radiological Incident-Free Exposure and Accident Impact Analysis Parameters.....	H.67
H.6.2	Non-Radiological Impact Analysis Parameters	H.70
H.6.3	Analysis Results.....	H.70
H.7	Results of Hazardous Chemical Impact Analysis	H.73
H.8	Potential Impacts of Sabotage or Terrorist Attack	H.76
H.9	Comparison of HSW EIS Transportation Impacts to Those in Other Environmental Impact Statements.....	H.78
H.9.1	Comparison to the Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste.....	H.79
H.9.2	Comparison to the Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement.....	H.81
H.10	Effects of Transporting Solid Waste by Rail.....	H.84
H.11	References	H.86
Appendix I	Ecological Resources	I.1
I.1	Background	I.1
I.2	Impacts to Terrestrial Resources Resulting from Surface Disturbance.....	I.2
I.2.1	Alternative Group A.....	I.2
I.2.2	Alternative Group B.....	I.13
I.2.3	Alternative Group C.....	I.16
I.2.4	Alternative Groups D ₁ , D ₂ , and D ₃	I.16
I.2.5	Alternative Groups E ₁ , E ₂ , and E ₃	I.17
I.2.6	No Action Alternative.....	I.18
I.2.7	Mitigation.....	I.19

	I.2.8	Biodiversity	I.27
	I.2.9	Microbiotic Crusts.....	I.28
I.3		Potential Impacts to Columbia River Aquatic and Riparian Resources Resulting from Future Contaminant Releases	I.28
	I.3.1	Assumptions Regarding Contaminants	I.29
	I.3.2	Assumptions Regarding Partitioning of Contaminants to Abiotic Media...	I.30
	I.3.3	Ecological Contaminant Exposure Model	I.31
	I.3.4	Combined Radiological Toxicity	I.31
	I.3.5	Chemical Toxicity of Total Uranium.....	I.45
I.4		Consultations.....	I.55
I.5		References	I.55
Appendix J		Construction Noise – Method of Assessment	J.1
J.1		Assessment of Noise Impacts.....	J.1
	J.1.1	Critical Distances	J.1
	J.1.2	Source Term.....	J.2
J.2		References	J.3
Appendix K		Cultural Resources	K.1
K.1		Introduction	K.1
	K.1.1	200 East and 200 West Areas	K.1
	K.1.2	Central Waste Complex Expansion Area.....	K.5
	K.1.3	New Waste Processing Facility.....	K.6
K.2		Area C – Borrow Pits, Stockpile Area, and Access Roads.....	K.6
	K.2.1	Literature and Record Search – Previous Cultural Resources Surveys.....	K.7
	K.2.2	Research Initiatives and Field Reconnaissance.....	K.8
K.3		References	K.50
Appendix L		System Assessment Capability: A 10,000-Year Post-Closure Assessment	L.1
L.1		Introduction	L.1
	L.1.1	Context of SAC Runs.....	L.3
	L.1.2	Relationship to EIS Calculations	L.4
L.2		Methods and Approach	L.5
	L.2.1	Modular Components of SAC.....	L.6
	L.2.2	Inventory.....	L.8
	L.2.2.1	Initial Assessment Inventory	L.10
	L.2.2.2	Comparison of HSW EIS and Initial Assessment Inventories	L.10
	L.2.3	Release	L.15
	L.2.3.1	Conceptual Model	L.16
	L.2.3.2	Implementation Model	L.16
	L.2.3.3	Numerical Models Relevant to HSW EIS.....	L.17
	L.2.3.4	Comparison of Release Model Parameters	L.21
L.2.4		Vadose Zone Module	L.23
	L.2.4.1	Distribution Coefficients (K_d s) for Technetium-99, Iodine-129, and Uranium	L.23
	L.2.4.2	Vadose Zone Strata and Hydraulic Properties	L.25
	L.2.4.3	Surface Covers	L.27
L.2.5		Groundwater Module	L.31

	L.2.6	River Transport Module.....	L.34
	L.2.7	Risk and Impact	L.35
	L.2.8	Uncertainty.....	L.36
L.3	Results		L.36
	L.3.1	Release to Groundwater Results	L.37
	L.3.2	Drinking Water Dose at Selected 200 East and 200 West Area Locations.	L.74
		L.3.2.1 Drinking Water Dose at the Northeast Corner of the 200 West Area.....	L.75
		L.3.2.2 Drinking Water Dose at the Southeast Corner of the 200 East Area.....	L.76
		L.3.2.3 Drinking Water Dose at the Northwest Corner of the 200 East Area.....	L.79
	L.3.3	Dose from Columbia River Water at the City of Richland Pumping Station	L.81
		L.3.3.1 Drinking Water Dose at the City of Richland Pumping Station .	L.82
	L.3.4	Annual Drinking Water Dose at Selected 200 East Area and Columbia River Locations from Hanford Sources Including ILAW.....	L.84
L.4	References		L.94
Appendix M		Long-Term Impacts Associated with Discontinuing Disposal of HSW at the Hanford Site	M.1
	M.1	Introduction	M.1
	M.2	Impacts on Groundwater	M.1
Appendix N		Overview of DOE Nationwide and Hanford Site Waste Management Programs and Initiatives	N.1
	N.1	DOE Nationwide Waste Management Programs.....	N.1
		N.1.1 Environmental Management Top-to-Bottom Review.....	N.1
		N.1.2 DOE Cost Report	N.3
	N.2	DOE Office of Environmental Management Programs at the Hanford Site	N.5
		N.2.1 Spent Nuclear Fuel.....	N.5
		N.2.2 High-Level Waste	N.5
		N.2.3 Environmental Restoration Waste.....	N.6
		N.2.4 Groundwater Protection	N.8
		N.2.5 Liquid Waste	N.9
		N.2.6 Cleanup, Constraints, and Challenges Team (C3T).....	N.10
		N.2.7 Hanford Performance Management Plan (HPMP)	N.11
		N.2.8 Pollution Prevention/Waste Minimization.....	N.15
		N.2.9 Transuranic Waste Considerations.....	N.18
	N.3	References	N.19
Appendix O		Unpublished Sources Cited in the Hanford Solid (Radioactive and Hazardous) Waste Environmental Impact Statement	O.1

Figures

B.1	Waste Types and Waste Streams Considered in the HSW EIS	B.2
D.1	218-E-12B Burial Ground.....	D.2
D.2	218-E-10 Burial Ground	D.3
D.3	218-W-3A Burial Ground	D.5
D.4	218-W-3AE Burial Ground.....	D.6
D.5	218-W-4B Burial Ground	D.7
D.6	218-W-4C Burial Ground	D.8
D.7	218-W-5 Burial Ground.....	D.9
D.8	218-W-6 Burial Ground.....	D.10
D.9	Existing and Proposed ERDF Disposal Cells	D.11
D.10	Area C Location Relative to the 200 East and 200 West Burial Grounds	D.12
D.11	Borrow Pit Layout in Area C	D.13
D.12	Hanford Barrier	D.19
D.13	Standard RCRA Subtitle C Barrier	D.20
D.14	Modified RCRA Subtitle D Barrier with Bentonite Mix	D.21
D.15	US Ecology, Inc. Conceptual Cover Barrier.....	D.22
F.1	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from the 200 West Area, Alternative Group A	F.57
F.2	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group A	F.58
F.3	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Southeast of 200 East Area, Alternative Group A	F.59
F.4	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River Alternative Group A	F.60
F.5	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group B	F.61
F.6	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group B.....	F.62
F.7	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group B.....	F.63
F.8	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group C	F.64
F.9	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group C.....	F.65
F.10	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Southeast of 200 East Area, Alternative Group C.....	F.66
F.11	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group C.....	F.67

F.12	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group D ₁	F.68
F.13	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group D ₁	F.69
F.14	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Southeast of 200 East Area, Alternative Group D ₁	F.70
F.15	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group D ₁	F.71
F.16	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group D ₂	F.72
F.17	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group D ₂	F.73
F.18	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group D ₂	F.74
F.19	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group D ₃	F.75
F.20	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from ERDF, Alternative Group D ₃	F.76
F.21	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group D ₃	F.77
F.22	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group D ₃	F.78
F.23	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group E ₁	F.79
F.24	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from ERDF, Alternative Group E ₁	F.80
F.25	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group E ₁	F.81
F.26	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group E ₁	F.82
F.27	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group E ₂	F.83
F.28	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from ERDF, Alternative Group E ₂	F.84
F.29	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group E ₂	F.85
F.30	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Southeast of 200 East Area, Alternative Group E ₂	F.86
F.31	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group E ₂	F.87

F.32	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, Alternative Group E ₃	F.88
F.33	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from ERDF, Alternative Group E ₃	F.89
F.34	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, Alternative Group E ₃	F.90
F.35	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Southeast of 200 East Area, Alternative Group E ₃	F.91
F.36	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, Alternative Group E ₃	F.92
F.37	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient from 200 West Area, No Action Alternative	F.93
F.38	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well 1 km Downgradient Northwest of 200 East Area, No Action Alternative.....	F.93
F.39	Hypothetical Annual Drinking Water Dose at Various Times over 10,000 Years in Water from a Well Adjacent to the Columbia River, No Action Alternative	F.94
G.1	Lines of Analysis Downgradient of Aggregate Hanford Solid Waste Disposal Areas.....	G.3
G.2	Schematic Representation of Computational Framework and Codes Used in this SW EIS	G.7
G.3	Changes in Infiltration Rates Assumed in Source-Term Release to Approximate the Modified RCRA Subtitle C Barrier System Degradation	G.17
G.4	STOMP Code Results for Releases to the Water Table for a Unit Release from LLBGs for an Assumed Recharge Rate of 0.5 cm/yr	G.26
G.5	Comparison of Generalized Hydrogeologic and Geologic Stratigraphy	G.28
G.6	Peripheral Boundaries Defined for the Three-Dimensional Model	G.30
G.7	Transmissivity Distribution for the Unconfined Aquifer System Based on Two Dimensional Inverse Model Calibration.....	G.32
G.8	Distribution of Estimated Hydraulic Conductivities at Water Table from Best-Fit Inverse Calibration of Sitewide Groundwater Model.....	G.34
G.9	Distribution of Estimated Hydraulic Conductivities Along Section Lines A-A' and B-B' from Best-Fit Inverse Calibration of Sitewide Groundwater Model.....	G.35
G.10	Predicted Post-Hanford Water Table Conditions (Predominant Northerly Flow)	G.37
G.11	Predicted Post-Hanford Water Table Conditions (Predominant Easterly Flow)	G.38
G.12a	Simulated Transport of a 10-year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 100 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.40
G.12b	Simulated Transport of a 10-year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 300 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.41

G.12c	Simulated Transport of a 10-year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 500 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.42
G.12d	Simulated Transport of a 10-year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 700 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.43
G.13a	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 50 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.44
G.13b	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 150 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.45
G.13c	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 250 Years After Release Using a Groundwater Model with a Predominant Northerly Flow from the Central Plateau	G.46
G.14a	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 100 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.47
G.14b	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 300 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.48
G.14c	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 500 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.49
G.14d	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 West Area at 700 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.50
G.15a	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 50 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.51
G.15b	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 150 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.52
G.15c	Simulated Transport of a 10-Year Unit Release of a Contaminant Representative of Mobility Class 1 from MLLW in the 200 East Area at 250 Years After Release Using a Groundwater Model with a Predominant Easterly Flow from the Central Plateau.....	G.53
G.16a	Comparison of Predicted Concentrations from Unit Releases from the 200 East Area at the 200 East LOAs Using Groundwater Models with a Predominant Northerly and Easterly Flow from the Central Plateau	G.54
G.16b	Comparison of Predicted Concentrations from Unit Releases from the 200 East Area at Columbia River LOAs Using Groundwater Models with a Predominant Northerly and Easterly Flow from the Central Plateau	G.55
G.17a	Comparison of Predicted Concentrations from Unit Releases from the 200 West Area at the 200 West and ERDF LOAs Using Groundwater Models with a Predominant Northerly and Easterly Flow from the Central Plateau.....	G.56

G.17b	Comparison of Predicted Concentrations from Unit Releases from the 200 West Area at the Columbia River LOAs Using Groundwater Models with a Predominant Northerly and Easterly Flow from the Central Plateau	G.57
G.18	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (All Action Alternatives – Wastes Disposed of Before 1996)	G.189
G.19	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (All Action Alternatives – Wastes Disposed of Before 1996)	G.190
G.20	U-238 and C-14 Concentration Profiles at the 1-km Line of Analysis (200 East) (All Action Alternatives – Wastes Disposed of Before 1996)	G.191
G.21	U-238 and C-14 Concentration Profiles at the 1-km Line of Analysis (200 West) (All Action Alternatives – Wastes Disposed of Before 1996)	G.192
G.22	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (All Action Alternatives – Wastes Disposed of Before 1996)	G.193
G.23	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group A – Hanford Only Wastes Disposed of After 1995)	G.194
G.24	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group A – Hanford Only Wastes Disposed of After 1995)	G.195
G.25	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group A – Hanford Only Wastes Disposed of After 1995)	G.196
G.26	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group A – Upper Bound Volume Wastes Disposed of After 1995)	G.197
G.27	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group A – Upper Bound Volume Wastes Disposed of After 1995)	G.198
G.28	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group A – Upper Bound Volume Wastes Disposed of After 1995)	G.199
G.29	U-238 and C-14 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group A – Hanford Wastes Disposed of After 1995)	G.200
G.30	U-238 and C-14 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group A – Hanford Only Wastes Disposed of After 1995)	G.201
G.31	U-238 and C-14 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group A – Upper Bound Volume Wastes Disposed of After 1995)	G.202
G.32	U-238 and C-14 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group A – Upper Bound Volume Wastes Disposed of After 1995)	G.203
G.33	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group B – Hanford Only Wastes Disposed of After 1995)	G.204
G.34	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group B – Hanford Only Wastes Disposed of After 1995)	G.205
G.35	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group B – Hanford Only Wastes Disposed of After 1995)	G.206
G.36	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group B – Upper Bound Volume Wastes Disposed of After 1995)	G.207
G.37	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group B – Upper Bound Volume Wastes Disposed of After 1995)	G.208
G.38	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group B – Upper Bound Volume Wastes Disposed of After 1995)	G.209
G.39	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group C – Hanford Only Wastes Disposed of After 1995)	G.210

G.40	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group C – Hanford Only Wastes Disposed of After 1995).....	G.211
G.41	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group C – Hanford Only Wastes Disposed of After 1995).....	G.212
G.42	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group C – Upper Bound Volume Wastes Disposed of After 1995).....	G.213
G.43	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group C – Upper Bound Volume Wastes Disposed of After 1995).....	G.214
G.44	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group C – Upper Bound Volume Wastes Disposed of After 1995).....	G.215
G.45	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₁ – Hanford Only Wastes Disposed of After 1995)	G.216
G.46	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₁ – Hanford Only Wastes Disposed of After 1995)	G.217
G.47	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₁ – Hanford Only Wastes Disposed of After 1995)	G.218
G.48	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₁ – Upper Bound Volume Wastes Disposed of After 1995)	G.219
G.49	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₁ – Upper Bound Volume Wastes Disposed of After 1995)	G.220
G.50	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₁ – Upper Bound Volume Wastes Disposed of After 1995)	G.221
G.51	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₂ – Hanford Only Wastes Disposed of After 1995)	G.222
G.52	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₂ – Hanford Only Wastes Disposed of After 1995)	G.223
G.53	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₂ – Hanford Only Wastes Disposed of After 1995)	G.224
G.54	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₂ – Upper Bound Volume Wastes Disposed of After 1995)	G.225
G.55	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₂ – Upper Bound Volume Wastes Disposed of After 1995)	G.226
G.56	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₂ – Upper Bound Volume Wastes Disposed of After 1995)	G.227
G.57	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₃ – Hanford Only Wastes Disposed of After 1995)	G.228
G.58	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₃ – Hanford Only Wastes Disposed of After 1995)	G.229
G.59	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group D ₃ – Hanford Only Wastes Disposed of After 1995)	G.230
G.60	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₃ – Hanford Only Wastes Disposed of After 1995)	G.231
G.61	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group D ₃ – Upper Bound Volume Wastes Disposed of After 1995)	G.232
G.62	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group D ₃ – Upper Bound Volume Wastes Disposed of After 1995)	G.233
G.63	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group D ₃ – Upper Bound Volume Wastes Disposed of After 1995)	G.234

G.64	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group D ₃ – Upper Bound Volume Wastes Disposed of After 1995).....	G.235
G.65	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group E ₁ – Hanford Only Wastes Disposed of After 1995).....	G.236
G.66	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group E ₁ – Hanford Only Wastes Disposed of After 1995).....	G.237
G.67	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₁ – Hanford Only Wastes Disposed of After 1995).....	G.238
G.68	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₁ – Hanford Only Wastes Disposed of After 1995).....	G.239
G.69	Tc-99 and I-129 Concentration Profiles at 1-km Lines of Analysis (200 East) (Alternative Group E ₁ – Upper Bound Volume Wastes Disposed of After 1995).....	G.240
G.70	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group E ₁ – Upper Bound Volume Wastes Disposed of After 1995).....	G.241
G.71	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₁ – Upper Bound Volume Wastes Disposed of After 1995).....	G.242
G.72	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₁ – Upper Bound Volume Wastes Disposed of After 1995).....	G.243
G.73	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 East SE) (Alternative Group E ₂ – Hanford Only Wastes Disposed of After 1995).....	G.244
G.74	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group E ₂ – Hanford Only Wastes Disposed of After 1995).....	G.245
G.75	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₂ – Hanford Only Wastes Disposed of After 1995).....	G.246
G.76	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₂ – Hanford Only Wastes Disposed of After 1995).....	G.247
G.77	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group E ₂ – Upper Bound Volume Wastes Disposed of After 1995).....	G.248
G.78	Tc-99 and I-129 Concentration Profiles at 1-km Line of Analysis (200 West) (Alternative Group E ₂ – Upper Bound Volume Wastes Disposed of After 1995).....	G.249
G.79	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₂ – Upper Bound Volume Wastes Disposed of After 1995).....	G.250
G.80	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₂ – Upper Bound Volume Wastes Disposed of After 1995).....	G.251
G.81	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group E ₃ – Hanford Only Wastes Disposed of After 1995).....	G.252
G.82	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group E ₃ – Hanford Only Wastes Disposed of After 1995).....	G.253
G.83	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₃ – Hanford Only Wastes Disposed of After 1995).....	G.254
G.84	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₃ – Hanford Only Wastes Disposed of After 1995).....	G.255
G.85	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (Alternative Group E ₃ – Upper Bound Volume Wastes Disposed of After 1995).....	G.256
G.86	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (Alternative Group E ₃ – Upper Bound Volume Wastes Disposed of After 1995).....	G.257
G.87	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (ERDF) (Alternative Group E ₃ – Upper Bound Volume Wastes Disposed of After 1995).....	G.258

G.88	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (Alternative Group E ₃ – Upper Bound Volume Wastes Disposed of After 1995).....	G.259
G.89	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 East) (No Action Alternative - Previously Disposed of Wastes)	G.260
G.90	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (No Action Alternative – Previously Disposed of Wastes)	G.261
G.91	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (No Action Alternative – Previously Disposed of Wastes)	G.262
G.92	Tc-99 and I-129 Concentration Profiles at the 1-km Lines of Analysis (200 East) (No Action Alternative – Hanford Only Wastes Disposed of After 1995).....	G.263
G.93	Tc-99 and I-129 Concentration Profiles at the 1-km Line of Analysis (200 West) (No Action Alternative – Hanford Only Wastes Disposed of After 1995).....	G.264
G.94	I-129 and Tc-99 Concentration and River Flux Profiles Near the Columbia River (No Action Alternative – Hanford Only Wastes Disposed of After 1995).....	G.265
G.95	Drinking Water Dose at a Well 100 Meters Downgradient from the ILAW Disposal Facility as a Function of Time for Various ILAW Waste Form Performance and Disposal Facility Parameters	G.267
G.96	Scaled Concentrations of Key Constituents that were Used from the ILAW PA at the 200 East Area SE and Columbia River LOAs for Those Alternative Groups where ILAW Disposal was Sited near the PUREX Plant, Alternative Groups A, C, D ₁ , and E ₃	G.270
G.97	Comparison of Predicted Peak Concentrations of Technetium-99 and Iodine-129 at 200 East SE LOA from Upper Bound Inventories in UngROUTED MLLW Disposed of After 2007.....	G.273
G.98	Comparison of Predicted Peak Concentrations of Uranium-238 at the 200 East SE LOA from Upper Bound Inventories in UngROUTED and Grouted MLLW Disposed of After 2007.....	G.274
G.99	Local-Scale Lines of Analysis 100 Meters Downgradient from the LLW Management Areas in the 200 East Area.....	G.276
G.100	Local-Scale Lines of Analysis 100 Meters Downgradient from the LLW Management Areas in the 200 West Area and at ERDF	G.277
G.101	Local-Scale Finite Element Grid Used in the Unit-Release Calculations in Groundwater Beneath the 200 East Area.....	G.278
G.102	Local-Scale Finite Element Grid Used in Unit-Release Calculations in Groundwater Beneath the 200 West Area.....	G.279
G.103	Local-Scale Finite Element Grid Used in Unit-Release Calculations in Groundwater Beneath ERDF	G.280
G.104	Approximate Disposal Area Footprint Used in the 200 East Area to Represent Waste Disposed of Before 2008 in the Unit-Release Calculation in Groundwater	G.281
G.105	Approximate Disposal Area Footprint Used in the 200 West Areas to Represent Waste Disposed of Before 2008 in the Unit-Release Calculation in Groundwater	G.281
G.106	Approximate Disposal Area Footprint Used in Alternative Group D ₁ (Near the PUREX Plant) to Represent Waste Disposed of After 2007 in the Unit-Release Calculation in Groundwater	G.282
G.107	Approximate Disposal Area Footprint Used in Alternative Group D ₂ (218-E-12B LLBG) to Represent Waste Disposed of After 2007 in the Unit-Release Calculation in Groundwater	G.282

G.108	Approximate Disposal Area Footprint used in Alternative Group D ₃ (at ERDF) to Represent Waste Disposed of After 2007 in the Unit-Release Calculation in Groundwater	G.283
H.1	Routes from Offsite to Hanford and from Hanford to WIPP	H.22
H.2	Illustration of Shipment Miles for Onsite and Offsite Waste Shipments	H.54
H.3	Illustration of Potential Transportation Impacts of Onsite and Offsite Waste Shipments—LCFs from Radiological Incident-Free Transport, Radiological Accidents, and Non-Radiological Emissions	H.55
H.4	Illustration of Potential Transportation Impacts of Onsite and Offsite Waste Shipments—Non-Radiological Fatalities from Traffic Accidents	H.56
H.5	Transporation Routes in Washington and Oregon	H.68
I.1	Plant Communities in Area C Before the 24 Command Fire of June 2000	I.6
I.2	Potential Plant Communities in Area C	I.7
I.3	Element Occurrences of Plant Community Types in Area C	I.8
I.4	Plant Communities in Area C After the 24 Command Fire of June 2000	I.8
I.5	Element Occurrences of Bitterbrush/Indian Ricegrass Sand Dune Complex Community Type Outside Area C in the 600 Area of Hanford Site, ALE (area west and south of Area C), and the Wahluke Slope (area north of the Columbia River)	I.22
I.6	Element Occurrences of Big Sagebrush/Needle-and-Thread Grass Community Type Outside Area C in the 600 Area of Hanford Site, ALE (area west and south of Area C), and the Wahluke Slope (area north of the Columbia River)	I.23
I.7	Element Occurrences (on Gable Mountain and at Vernita Quarry) of Big Sagebrush/Bluebunch Wheatgrass Community Type Outside Area C in the 600 Area of Hanford Site, ALE (area west and south of Area C), and the Wahluke Slope (area north of the Columbia River)	I.24
I.8	Mayfly Radiological EHQs for Each Alternative Group in the 0- to 2,500-Year Time Period for Background Compared to the Hanford and Hanford Plus Background Scenarios	I.44
I.9	Woodhouse's Toad Tadpole Radiological EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for Background Compared to the Hanford and Hanford Plus Background Scenarios	I.45
I.10	American Coot Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for Background and the Hanford Scenario	I.47
I.11	American Coot Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for the Hanford Plus Background Scenario	I.48
I.12	Woodhouse's Toad Tadpole Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for Background and the Hanford Scenario	I.51
I.13	Woodhouse's Toad Tadpole Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for the Hanford Plus Background Scenario	I.52
I.14	Carp Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for Background and the Hanford Scenario	I.53

I.15	Carp Low and High Uranium Chemical Toxicity EHQs for Each Alternative Group in the 2,500- to 10,000-Year Time Period for the Hanford Plus Background Scenario	I.54
K.1	Area C – Historical Features.....	K.7
K.2	Area C Predictive Model	K.9
L.1	Conceptual Model of the System Assessment Capability.....	L.8
L.2	Recharge Through Covers as a Function of Time	L.31
L.3	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Solid Waste Disposal Facilities Sites in the 200 East	L.39
L.4	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Solid Waste Disposal Facilities Sites in the 200 East Area	L.39
L.5	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Solid Waste Disposal Facilities Sites in the 200 West Area	L.40
L.6	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Solid Waste Disposal Facilities Sites in the 200 West Area	L.40
L.7	SAC Results for Annual Vadose Zone Release of Uranium from All Solid Waste Disposal Facilities Sites in the 200 East	L.41
L.8	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Solid Waste Disposal Facilities Sites in the 200 East Area	L.41
L.9	SAC Results for Annual Vadose Zone Release of Uranium from All Solid Waste Disposal Facilities Sites in the 200 West Area	L.42
L.10	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Solid Waste Disposal Facilities Sites in the 200 West Area.....	L.42
L.11	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Solid Waste Disposal Facility Sites in the 200 East Area	L.43
L.12	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Solid Waste Disposal Facility Sites in the 200 East Area.....	L.43
L.13	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Solid Waste Disposal Facility Sites in the 200 West Area.....	L.44
L.14	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Solid Waste Disposal Facility Sites in the 200 West Area	L.44
L.15	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Tank Sites in the 200 East Area	L.45
L.16	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Tank Sites in the 200 East Area	L.45
L.17	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Tank Sites in the 200 West Area.....	L.46
L.18	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Tank Sites in the 200 West Area.....	L.46
L.19	SAC Results for Annual Vadose Zone Release of Uranium from All Tank Sites in the 200 East Area	L.47
L.20	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Tank Sites in the 200 East Area.....	L.47
L.21	SAC Results for Annual Vadose Zone Release of Uranium from All Tank Sites in the 200 West Area	L.48
L.22	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Tank Sites in the 200 West Area	L.48

L.23	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Tank Sites in the 200 East Area	L.49
L.24	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Tank Sites in the 200 East Area	L.49
L.25	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Tank Sites in the 200 West Area	L.50
L.26	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Tank Sites in the 200 West Area	L.50
L.27	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.51
L.28	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.51
L.29	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Liquid Discharge and Unplanned Release Sites in the 200 West Area Plus SALDS	L.52
L.30	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Liquid Discharge and Unplanned Release Sites in the 200 West Area Plus SALDS	L.52
L.31	SAC Results for Annual Vadose Zone Release of Uranium from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.53
L.32	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.53
L.33	SAC Results for Annual Vadose Zone Release of Uranium from All Liquid Discharge and Unplanned Release Sites in the 200 West Area Plus SALDS	L.54
L.34	SAC Results for Cumulative Vadose Zone Release of Uranium from All Liquid Discharge and Unplanned Release Sites in the 200 West Area Plus SALDS	L.54
L.35	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.55
L.36	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Liquid Discharge and Unplanned Release Sites in the 200 East Area	L.55
L.37	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Liquid Discharge and Unplanned Release Sites in the 200 West Area plus SALDS	L.56
L.38	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Liquid Discharge and Unplanned Release Sites in the 200 West Area Plus SALDS	L.56
L.39	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Other Sites in the 200 East Area	L.58
L.40	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Other Sites in the 200 East Area	L.58
L.41	SAC Results for Annual Vadose Zone Release of Technetium-99 from All Other Sites in the 200 West Area	L.59
L.42	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Other Sites in the 200 West Area	L.59
L.43	SAC Results for Annual Vadose Zone Release of Technetium-99 from all Other Sites Outside the 200 East and 200 West Areas	L.60
L.44	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from All Other Sites Outside the 200 East and 200 West Areas	L.60
L.45	SAC Results for Annual Vadose Zone Release of Uranium from All Other Sites in the 200 East Area	L.61
L.46	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Other Sites in the 200 East Area	L.61

L.47	SAC Results for Annual Vadose Zone Release of Uranium from All Other Sites in the 200 West Area.....	L.62
L.48	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Other Sites in the 200 West Area.....	L.62
L.49	SAC Results for Annual Vadose Zone Release of Uranium from All Other Sites Outside the 200 East and 200 West Areas	L.63
L.50	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from All Other Sites Outside the 200 East and 200 West Areas	L.63
L.51	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Other Sites in the 200 East Area	L.64
L.52	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Other Sites in the 200 East Area	L.64
L.53	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Other Sites in the 200 West Area.....	L.65
L.54	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Other Sites in the 200 West Area.....	L.65
L.55	SAC Results for Annual Vadose Zone Release of Iodine-129 from All Other Sites Outside the 200 East and 200 West Areas.	L.66
L.56	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from All Other Sites Outside the 200 East and 200 West Areas.	L.66
L.57	SAC Results for Annual Vadose Zone Release of Technetium-99 from ERDF	L.67
L.58	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from ERDF	L.67
L.59	SAC Results for Annual Vadose Zone Release of Uranium from the ERDF	L.68
L.60	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from the ERDF	L.68
L.61	SAC Results for Annual Vadose Zone Release of Iodine-129 from ERDF	L.69
L.62	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from ERDF	L.69
L.63	SAC Results for Annual Vadose Zone Release of Technetium-99 from the Commercial Low-Level Radioactive Waste Disposal Site.....	L.70
L.64	SAC Results for Cumulative (undecayed) Vadose Zone Release of Technetium-99 from the Commercial Low-Level Radioactive Waste Disposal Site	L.70
L.65	SAC Results for Annual Vadose Zone Release of Uranium from the Commercial Low-Level Radioactive Waste Disposal Site.....	L.71
L.66	SAC Results for Cumulative (undecayed) Vadose Zone Release of Uranium from the Commercial Low-Level Radioactive Waste Disposal Site.....	L.71
L.67	SAC Results for Annual Vadose Zone Release of Iodine-129 from the Commercial Low-Level Radioactive Waste Disposal Site.....	L.72
L.68	SAC Results for Cumulative (undecayed) Vadose Zone Release of Iodine-129 from the Commercial Low-Level Radioactive Waste Disposal	L.72
L.69	Hypothetical Drinking Water Dose from Technetium-99 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northeasterly of the 200 West Area.....	L.76
L.70	Hypothetical Drinking Water Dose from Uranium from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northeasterly of the 200 West Area.....	L.77

L.71	Hypothetical Drinking Water Dose from Iodine-129 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northeasterly of the 200 West Area.....	L.77
L.72	Hypothetical Drinking Water Dose from Technetium-99 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Southeasterly of the 200 East Area.....	L.78
L.73	Hypothetical Drinking Water Dose from Uranium from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Southeasterly of the 200 East Area.....	L.78
L.74	Hypothetical Drinking Water Dose from Iodine-129 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Southeasterly of the 200 East Area.....	L.79
L.75	Hypothetical Drinking Water Dose from Technetium-99 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northwesterly of the 200 East Area.....	L.80
L.76	Hypothetical Drinking Water Dose from Uranium from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northwesterly of the 200 East Area.....	L.80
L.77	Hypothetical Drinking Water Dose from Iodine-129 from All Hanford Sources Except ILAW, Melters, and Naval Reactors in Groundwater 1 km Downgradient Northwesterly of the 200 East Area.....	L.81
L.78	Drinking Water Dose at the City of Richland Pumping Station from Technetium-99 Due to All Hanford Sources Except ILAW, Melters, and Naval Reactors.....	L.82
L.79	Drinking Water Dose at the City of Richland Pumping Station from Uranium Due to All Hanford Sources Except ILAW, Melters, and Naval Reactors.....	L.83
L.80	Drinking Water Dose at the City of Richland Pumping Station from Iodine-129 Due to All Hanford Sources Except ILAW, Melters, and Naval Reactors.....	L.83
L.81	Hypothetical Drinking Water Dose from Technetium-99 from Hanford Sources Including ILAW in Groundwater 1 km Downgradient Southeasterly of the 200 East Area .	L.85
L.82	Hypothetical Drinking Water Dose from Uranium from Hanford Sources Including ILAW in Groundwater 1 km Downgradient Southeasterly of the 200 East Area.....	L.85
L.83	Hypothetical Drinking Water Dose from Iodine-129 from Hanford Sources Including ILAW in Groundwater 1 km Downgradient Southeasterly of the 200 East Area.....	L.86
L.84	Concentrations of Technetium-99, Iodine-129, and Uranium from All Hanford Sources in Groundwater 1 km Downgradient Southeasterly of 200 East Area.....	L.86
L.85	Concentrations of Technetium-99, Iodine-129, and Uranium from All Hanford Sources in Groundwater 1 km Downgradient Southeasterly of 200 East Area.....	L.87
L.86	Hypothetical Total Drinking Water Dose from All Hanford Sources and from Solid Waste Contributions in Groundwater 1 km Downgradient Southeasterly of 200 East Area.	L.87
L.87	Annual Drinking Water Dose from Technetium-99 in the Columbia River at the City of Richland Pumping Station from Hanford Sources Including ILAW.....	L.90
L.88	Annual Drinking Water Dose from Iodine-129 in the Columbia River at the City of Richland Pumping Station from Hanford Sources Including ILAW.....	L.90
L.89	Annual Drinking Water Dose from Uranium in the Columbia River at the City of Richland Pumping Station from Hanford Sources Including ILAW.....	L.91
L.90	Concentration of Technetium-99, Iodine-129, and Uranium in the Columbia River at the City of Richland Pumping Station	L.91

L.91	Drinking Water Dose from Technetium-99, Iodine-129, and Uranium in the Columbia River at the City of Richland Pumping Station.....	L.92
L.92	Total Drinking Water Dose from All Hanford Sources and the Solid Waste Contribution in the Columbia River at the City of Richland Pumping Station.....	L.92
M.1	Hypothetical Annual Dose from Drinking Water Containing Maximum Combined Concentrations of Radionuclides in Groundwater at 1 km Downgradient from the 200 West Area as a Function of Calendar Year.....	M.2
M.2	Hypothetical Annual Dose from Drinking Water Containing Maximum Combined Concentrations of Radionuclides in Groundwater 1 km Downgradient Northwest of the 200 East Area as a Function of Calendar Year	M.2
M.3	Hypothetical Annual Dose from Drinking Water Containing Maximum Combined Concentrations of Radionuclides in Groundwater Near the Columbia River as a Function of Calendar Year	M.3
M.4	Annual Dose to a Hypothetical Resident Gardener at Various Times over 10,000 Years Using Water from a Well 1 km Downgradient from 200 West Area	M.4
M.5	Annual Dose to a Hypothetical Resident Gardener at Various Times over 10,000 Years Using Water from a Well 1 km Downgradient Northwest of the 200 East Area.....	M.4
M.6	Annual Dose to a Hypothetical Resident Gardener at Various Times over 10,000 Years Using Water from a Well Adjacent to the Columbia River.....	M.5
M.7	Annual Dose to a Hypothetical Resident Gardener with a Sauna/Sweat Lodge Scenario at Various Times over 10,000 Years Using Water from a Well 1 km Downgradient from the 200 West Area.....	M.5
M.8	Annual Dose to a Hypothetical Resident Gardener with a Sauna/Sweat Lodge Scenario at Various Times over 10,000 Years Using Water from a Well 1 km Downgradient Northwest of the 200 East Area	M.6
M.9	Annual Dose to a Hypothetical Resident Gardener with a Sauna/Sweat Lodge Scenario at Various Times over 10,000 Years Using Water from a Well Adjacent to the Columbia River.....	M.6
N.1	Hanford's Land-Use Plan	N.12
O.1		

Tables

A.1	Individuals, Organizations, and Agencies that Commented on the Scoping Phase of the ILAW SEIS.....	A.2
A.2	ILAW Disposal SEIS – Public Scoping Comments and Responses.....	A.3
A.3	Individuals, Organizations, and Agencies Commenting on the Scoping Phase of the HSW EIS.....	A.21
B.1	Assumptions for Management of Low-Level Waste	B.4
B.2	Assumptions for Management of Mixed Low-Level Waste.....	B.5

B.3	Assumptions for Management of Transuranic Waste.....	B.7
B.4	Assumptions for Management of Waste Treatment Plant Wastes.....	B.9
B.5	Low-Level Waste Hanford Only Volumes	B.10
B.6	Low-Level Waste Lower Bound Volumes	B.10
B.7	Low-Level Waste Upper Bound Volumes.....	B.10
B.8	Mixed Low-Level Waste Hanford Only Volumes.....	B.11
B.9	Mixed Low-Level Waste Lower Bound Volumes.....	B.11
B.10	Mixed Low-Level Waste Upper Bound Volumes	B.12
B.11	Transuranic Waste Hanford Only Volumes.....	B.12
B.12	Transuranic Waste Lower Bound Volumes.....	B.13
B.13	Transuranic Waste Upper Bound Volumes	B.13
B.14	Waste Treatment Plant Waste Volumes.....	B.14
B.15	Inventory of Long-Lived Mobile Radionuclides in HSW for the Various Alternative Groups, Ci.....	B.16
B.16	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Group A, Ci.....	B.17
B.17	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Group B, Ci	B.21
B.18	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Group C, Ci	B.25
B.19	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Groups D ₁ and D ₂ , Ci.....	B.29
B.20	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Group D ₃ , Ci.....	B.33
B.21	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Groups E ₁ and E ₂ , Ci	B.37
B.22	Inventory of Long-Lived Mobile Radionuclides in HSW for Alternative Group E ₃ , Ci	B.41
B.23	Inventory of Long-Lived Mobile Radionuclides in HSW for the No Action Alternative, Ci.....	B.45
B.24a	Inventory of MLLW as Soil and Grouted-Equivalent Fractions for Alternative Groups A, C, D, and E, Ci.....	B.46
B.24b	Inventory of MLLW as Soil and Grouted-Equivalent Fractions for Alternative Group B, Ci.....	B.47
B.24c	Inventory of MLLW as Soil and Grouted-Equivalent Fractions for the No Action Alternative, Ci.....	B.48
B.25	Identification of Flowsheets.....	B.49
B.26	Matrix of Disposal Options for Alternative Groups D and E	B.81
C.1.	Comparison of Waste Management Programmatic Environmental Impact Statement, Accelerated Cleanup: Paths to Closure, and HSW EIS Waste Volumes.....	C.3
C.2	Hanford Only Volume for Low-Level Waste	C.5
C.3	Lower Bound Volume for Low-Level Waste	C.6
C.4	Upper Bound Volume for Low-Level Waste.....	C.7
C.5	Hanford Only Volume for Mixed Low-Level Waste.....	C.7
C.6	Lower Bound Volume for Mixed Low-Level Waste.....	C.8
C.7	Upper Bound Volume for Mixed Low-Level Waste	C.9
C.8	Hanford Only Waste Volumes for Transuranic Waste	C.10
C.9	Lower Bound Waste Volumes for Transuranic Waste	C.10
C.10	Upper Bound Waste Volumes for Transuranic Waste.....	C.11
C.11	Estimated Volumes of WTP Waste Streams through 2046	C.11

E.1	200 East and 200 West Area Emissions: Dispersion Factors Used to Determine Maximum Air Quality Impacts to the Public	E.4
E.2	Area C Borrow Pit Emissions: Location and Dispersion Factors Used to Determine Maximum Air Quality Impacts	E.5
E.3	Timeline of Alternative Group A Activities Resulting in Criteria Pollutant Emissions	E.7
E.4	Timeline of Alternative Group B Activities Resulting in Criteria Pollutant Emissions	E.8
E.5	Timeline of Alternative Group C Activities Resulting in Criteria Pollutant Emissions	E.9
E.6	Timeline of Alternative Group D Activities Resulting in Criteria Pollutant Emissions	E.10
E.7	Timeline of Alternative Group E Activities Resulting in Criteria Pollutant Emissions	E.11
E.8	Timeline of the No Action Alternative Resulting in Criteria Pollutant Emissions	E.12
E.9	Emission Factors for Criteria Pollutants	E.13
E.10	Average Diesel Fuel Consumption Rates	E.15
E.11	Average Propane Fuel Consumption Rates	E.17
E.12	Size of Disturbed Areas and Associated Durations for Various Activities/ Alternatives	E.20
E.13	Maximum Air Quality Impacts to the Public from Major Activities with a Source Location in the 200 West or 200 East Areas	E.22
E.14	Maximum Impacts from Any Single Activity Conducted in the 200 Areas	E.25
E.15	Maximum Air Quality Impacts to the Public from Activities with an Area C Source Location	E.25
E.16	Clean Air Act Conformity Review for the Alternatives	E.26
F.1	Summary of Waste Stream Concentration Tables	F.3
F.2	Stream 1: Low-Level Waste Category 1	F.4
F.3	Stream 2: Low-Level Waste Category 3	F.4
F.4	Streams 1 and 2: Low-Level Waste from Offsite Sources	F.5
F.5	Stream 2C2: Low-Level Waste Category 3 for T Plant Processing from Offsite Sources ...	F.6
F.6	Stream 4: TRU-RH Waste from Trenches	F.7
F.7	Stream 4: TRU-CH Waste from Trenches	F.7
F.8	Stream 5: TRU-CH Waste from Caissons	F.7
F.9	Stream 8: TRU – Commingled Polychlorinated Biphenyl Waste	F.8
F.10	Streams 9 and 10A: TRU – Newly Generated and Existing CH Standard and Non-Standard Containers	F.8
F.11	Stream 10B: TRU – Newly Generated and Existing RH Waste	F.9
F.12	Stream 11: MLLW Treated and Ready for Disposal	F.9
F.13	Stream 12: RH and Non-Standard Packages	F.11
F.14	Stream 13: CH Organic and Inorganic Solids and Debris	F.11
F.15	Stream 14: Elemental Lead	F.13
F.16	Stream 15: Elemental Mercury	F.14
F.17	Stream 17: K Basin Sludge	F.14
F.18	Stream 18: MLLW Trench Leachate	F.15
F.19	Release Fraction Values for the WRAP	F.16
F.20	Release Fractions for Volatile Organic Compounds from the WRAP	F.17
F.21	Airborne Radionuclide Releases from the WRAP	F.18
F.22	Total Chemical Atmospheric Releases from the WRAP	F.19
F.23	Release Fraction Values for the 2706-T Facility in the T Plant Complex	F.19
F.24	Total Radionuclide Atmospheric Release from the T Plant Complex	F.20
F.25	Total Chemical Atmospheric Releases from the T Plant Complex	F.21

F.26	Release Fraction Values for the New Waste Processing Facility and the Modified T Plant Complex	F.22
F.27	Total Radionuclide Atmospheric Release from the Modified T Plant Complex for Alternative Group A	F.22
F.28	Total Chemical Atmospheric Releases from the Modified T Plant Complex for Alternative Group A	F.23
F.29	Atmospheric Radionuclide Releases from the New Waste Processing Facility for Alternative Group B.....	F.23
F.30	Total Chemical Atmospheric Releases from the New Waste Processing Facility for Alternative Group B.....	F.24
F.31	Atmospheric Radionuclide Release from Pulse Drier Leachate Treatment—Alternative Groups A and B	F.25
F.32	Atmospheric Radionuclide Release from Pulse Drier Leachate Treatment—Alternative Groups C and D, and the No Action Alternative	F.26
F.33	Release Point Characteristics.....	F.27
F.34	Joint Frequency Distributions for the 200 Areas at 9.1-m Towers, 1983-1996 Historical Data	F.28
F.35	Joint Frequency Distributions for the 200 Areas at 60-m Aboveground Level, 1983-1996 Historical Data.....	F.29
F.36	Population Within 80 km of the 200 Areas.....	F.32
F.37	Industrial Scenario Exposure Pathways.....	F.34
F.38	Industrial Scenario Parameter Values.....	F.34
F.39	Resident Gardener Scenario Exposure Pathways	F.35
F.40	Resident Gardener Scenario Parameter Values	F.36
F.41	Volatilization Half-Times for Soil	F.40
F.42	Soil Classification Composition	F.41
F.43	Soil-Related Properties of Hazardous Chemicals	F.42
F.44	Distribution Coefficients of Radionuclides and Inorganic Chemicals.....	F.43
F.45	Summary of Basis for Health Consequences from Radiological Exposures from Federal Guidance Report 13	F.44
F.46	Basis for Health Consequences from Radiological Exposures.....	F.45
F.47	Ratios of Dose and Risk to Children over Dose and Risk to Adults from 1-Year Ingestion of Contaminated Drinking Water.....	F.46
F.48	Peak Radionuclide Concentrations in Disposal Facilities.....	F.52
F.49	Dose-Rate-per-Unit Waste Concentration Factors for the Post-Well Drilling Scenario, Time Since Year 2046	F.54
F.50	Dose-Rate-per-Unit Waste Concentration Factors for the Excavation Scenario, Time Since Year 2046	F.55
F.51	Content of Figures for Groundwater Analysis Results	F.56
F.52	Exposure Scenario Dose Factors for Use of Groundwater	F.94
F.53	Content of Tables for Groundwater Analysis Results	F.95
F.54	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Hanford Only Waste Volume	F.96
F.55	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Lower Bound Waste Volume.....	F.97

F.56	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Upper Bound Waste Volume	F.98
F.57	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Hanford Only Waste Volume	F.99
F.58	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Lower Bound Waste Volume.....	F.100
F.59	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Upper Bound Waste Volume	F.101
F.60	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Hanford Only Waste Volume	F.102
F.61	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Lower Bound Waste Volume.....	F.103
F.62	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group A, Upper Bound Waste Volume	F.104
F.63	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Hanford Only Waste Volume.....	F.105
F.64	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Lower Bound Waste Volume.....	F.106
F.65	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Upper Bound Waste Volume	F.107
F.66	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Hanford Only Waste Volume.....	F.108
F.67	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Lower Bound Waste Volume.....	F.109
F.68	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Upper Bound Waste Volume	F.110
F.69	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Hanford Only Waste Volume.....	F.111
F.70	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Lower Bound Waste Volume.....	F.112
F.71	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group B, Upper Bound Waste Volume	F.113

F.72	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Hanford Only Waste Volume.....	F.114
F.73	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Lower Bound Waste Volume.....	F.115
F.74	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Upper Bound Waste Volume	F.116
F.75	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Hanford Only Waste Volume.....	F.117
F.76	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Lower Bound Waste Volume.....	F.118
F.77	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Upper Bound Waste Volume	F.119
F.78	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Hanford Only Waste Volume.....	F.120
F.79	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Lower Bound Waste Volume.....	F.121
F.80	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group C, Upper Bound Waste Volumes.....	F.122
F.81	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Hanford Only Waste Volume	F.123
F.82	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Lower Bound Waste Volume	F.124
F.83	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Upper Bound Waste Volume.....	F.125
F.84	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Hanford Only Waste Volume	F.126
F.85	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Lower Bound Waste Volume	F.127
F.86	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Upper Bound Waste Volume.....	F.128
F.87	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Hanford Only Waste Volume	F.129

F.88	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Lower Bound Waste Volume	F.130
F.89	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₁ , Upper Bound Waste Volume	F.131
F.90	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Hanford Only Waste Volume	F.132
F.91	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Lower Bound Waste Volume	F.133
F.92	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Upper Bound Waste Volume	F.134
F.93	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Hanford Only Waste Volume	F.135
F.94	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Lower Bound Waste Volume	F.136
F.95	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Upper Bound Waste Volume	F.137
F.96	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Hanford Only Waste Volume	F.138
F.97	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Lower Bound Waste Volume	F.139
F.98	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₂ , Upper Bound Waste Volume	F.140
F.99	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Hanford Only Waste Volume	F.141
F.100	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Lower Bound Waste Volume	F.142
F.101	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Upper Bound Waste Volume	F.143
F.102	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Hanford Only Waste Volume	F.144
F.103	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Lower Bound Waste Volume	F.145

F.104	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Upper Bound Waste Volume.....	F.146
F.105	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Hanford Only Waste Volume	F.147
F.106	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Lower Bound Waste Volume	F.148
F.107	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group D ₃ , Upper Bound Waste Volume.....	F.149
F.108	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Hanford Only Waste Volume.....	F.150
F.109	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Lower Bound Waste Volume.....	F.151
F.110	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Upper Bound Waste Volume	F.152
F.111	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Hanford Only Waste Volume.....	F.153
F.112	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Lower Bound Waste Volume.....	F.154
F.113	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Upper Bound Waste Volume	F.155
F.114	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Hanford Only Waste Volume.....	F.156
F.115	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater Over 10,000 Years for Alternative Group E ₁ , Lower Bound Waste Volume.....	F.157
F.116	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₁ , Upper Bound Waste Volume	F.158
F.117	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Hanford Only Waste Volume.....	F.159
F.118	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Lower Bound Waste Volume.....	F.160
F.119	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Upper Bound Waste Volume	F.161

F.120	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Hanford Only Waste Volume.....	F.162
F.121	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Lower Bound Waste Volume.....	F.163
F.122	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Upper Bound Waste Volume	F.164
F.123	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Hanford Only Waste Volume.....	F.165
F.124	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Lower Bound Waste Volume.....	F.166
F.125	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₂ , Upper Bound Waste Volume	F.167
F.126	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Hanford Only Waste Volume.....	F.168
F.127	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Lower Bound Waste Volume.....	F.169
F.128	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Upper Bound Waste Volume	F.170
F.129	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Hanford Only Waste Volume.....	F.171
F.130	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Lower Bound Waste Volume.....	F.172
F.131	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area and 200 ERDF Site 1-km Wells from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Upper Bound Waste Volume	F.173
F.132	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Hanford Only Waste Volume.....	F.174
F.133	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Lower Bound Waste Volume.....	F.175
F.134	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for Alternative Group E ₃ , Upper Bound Waste Volume	F.176
F.135	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Hanford Only Waste Volume.....	F.177

F.136	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 East Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Lower Bound Waste Volume	F.178
F.137	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Hanford Only Waste Volume	F.179
F.138	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the 200 West Area 1-km Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Lower Bound Waste Volume	F.180
F.139	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Hanford Only Waste Volume	F.181
F.140	Potential Individual Human Health Impacts to a Hypothetical Resident Gardener at the Columbia River Well from Radionuclides in the Groundwater over 10,000 Years for the No Action Alternative, Lower Bound Waste Volume	F.182
F.141	West Valley TRU Radionuclide Concentrations	F.183
F.142	Occupational Exposure from Processing West Valley TRU Wastes at Hanford.....	F.184
F.143	Non-Involved Worker and Public Health Impacts from Routine Atmospheric Releases of Radionuclides – West Valley TRU Waste Only.....	F.185
G.1	Constituents Categorized by Mobility (K_d) Classes.....	G.10
G.2	Assumed Distribution of LLBG Areas of Previously Disposed of LLW, Cat 1 LLW, Cat 3 LLW, MLLW, and Melters in the 200 East and 200 West Areas by Alternative Group	G.13
G.3	Summary of Waste Depth and Infiltration Rates Used in the Soil-Debris Release Model....	G.15
G.4	Geologic Well Logs for the Vadose Zone Model	G.22
G.5	Sediment Types and Unsaturated Flow Model Parameters Used in the Composite Analysis	G.23
G.6	Major Hydrogeologic Units Used in the Sitewide Three-Dimensional Model.....	G.27
G.7	Predicted Peak Concentrations of Key Constituents from Wastes Disposed of Before 2008 at a 1-km Line of Analysis, All Action Alternatives.....	G.78
G.8	Predicted Peak Concentrations of Key Constituents from Wastes Disposed of Before 2008 at a Line of Analysis Near the Columbia River, All Action Alternatives.....	G.84
G.9	Predicted Peak River Flux of Key Constituents from Wastes Disposed of Before 2008 at a Line of Analysis Near the Columbia River, All Action Alternatives.....	G.90
G.10	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group A	G.96
G.11	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group A.....	G.99
G.12	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group A	G.102
G.13	Predicted peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group B.....	G.105
G.14	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group B	G.108
G.15	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group B.....	G.111

G.16	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group C.....	G.114
G.17	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group C.....	G.117
G.18	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group C.....	G.120
G.19	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group D ₁	G.123
G.20	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group D ₁	G.126
G.21	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group D ₁	G.129
G.22	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group D ₂	G.132
G.23	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group D ₂	G.135
G.24	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group D ₂	G.138
G.25	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group D ₃	G.141
G.26	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group D ₃	G.144
G.27	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group D ₃	G.147
G.28	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group E ₁	G.150
G.29	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group E ₁	G.153
G.30	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group E ₁	G.156
G.31	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group E ₂	G.159
G.32	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group E ₂	G.162
G.33	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative Group E ₂	G.165
G.34	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a 1-km Line of Analysis, Alternative Group E ₃	G.168
G.35	Predicted Peak Concentrations of Key Constituents Disposed of After 2007 at a Line of Analysis Near the Columbia River, Alternative Group E ₃	G.171
G.36	Predicted Peak River Flux of Key Constituents Disposed of After 2007 at a Line of Analysis to the Columbia River, Alternative E ₃	G.174
G.37	Predicted Peak Concentrations of Key Constituents at a 1-km Line of Analysis, No Action Alternative.....	G.177
G.38	Predicted Peak Concentrations of Key Constituents at a Line of Analysis Near the Columbia River, No Action Alternative.....	G.181
G.39	Predicted Peak River Flux of Key Constituents at a Line of Analysis Near the Columbia River, No Action Alternative	G.185

G.40	Drinking Water Doses (mrem/yr)	G.267
G.41	Well Intercept Factors at LOAs Downgradient from the ILAW Disposal Facility Sited Near the PUREX Plant and Alternative Locations	G.271
G.42	Predicted Peak Concentrations of Key Constituents from Waste Disposed of Before 2008 at Aggregate LLW Management Area Boundaries, Alternative Groups D ₁ , D ₂ , and D ₃	G.284
G.43	Predicted Peak Concentrations of Key Constituents from Wastes Disposed of After 2007 at Aggregate LLW Management Area Boundaries, Alternative Group D ₁	G.288
G.44	Predicted Peak Concentrations of Key Constituents by from Wastes Disposed of After 2007 at Aggregate LLW Management Area Boundaries, Alternative Group D ₂	G.290
G.45	Predicted Peak Concentrations of Key Constituents for Wastes Disposed of After 2007 at Aggregate LLW Management Area Boundaries, Alternative Group D ₃	G.292
G.46	Sum of MCL Fractions and Drinking Water Dose from Maximum Potential Concentrations for Technetium-99 and Iodine-129 for Waste Buried Before 2008 at Facility Boundaries	G.298
G.47	Sums of MCL Fractions and Drinking Water Doses from Maximum Potential Concentrations for Technetium-99 and Iodine-129 for Waste Buried After 2007 at Facility Boundaries	G.300
G.48	Estimated Inventories of Selected Hazardous Chemicals Potentially Disposed of in HSW LLBGs Between 1962 and 1987	G.301
G.49	Constituents Categorized by Mobility Classes	G.304
G.50	Degradation Rates of Selected Organic Chemicals Hypothetically Associated with Waste Disposed of Before 1988	G.305
G.51	Degradation Rates Due to Volatilization of Selected Organic Chemicals Hypothetically Associated with Waste Disposed of Before 1988 Using Methods by Streng and Peterson	G.305
G.52	Predicted Peak Concentrations of Selected Hazardous Chemical Within Waste Disposed of Before 1988	G.306
H.1	General Shipping Parameters for HSW EIS Solid Waste Shipments	H.9
H.2	Shipping Data for Alternative Group A, Hanford Only Waste Volume	H.12
H.3	Shipping Data for Alternative Group B, Hanford Only Waste Volume	H.14
H.4	Onsite Shipping Data for the No Action Alternative	H.16
H.5	Offsite Shipment Volumes and Shipment Projections	H.18
H.6	Shipping Capacities Used to Estimate Offsite Shipments	H.20
H.7	Route Characteristics Data for Offsite Shipments	H.21
H.8	RADTRAN 5 Accident Parameters for Onsite Truck Shipments	H.24
H.9	Radionuclide Concentrations Used to Calculate Per-Shipment Inventories for Onsite Shipments	H.26
H.10	Radionuclide Inventories for Offsite Shipments	H.27
H.11	Hazardous Chemical Inventories in Various Waste Types	H.29
H.12	Transportation Impacts of Alternative Group A – Hanford Only Waste Volume, Number of Fatalities	H.32
H.13	Transportation Impacts of Alternative Group B – Hanford Only Waste Volume, Number of Fatalities	H.35
H.14	Transportation Impacts for the No Action Alternative, Hanford Only Waste Volume, Number of Fatalities	H.37
H.15	Summary of Impacts of Shipping Hanford Only Wastes for Each Alternative Group	H.40

H.16	Radiological Transportation Impacts for Offsite Shipments	H.41
H.17	Summary of Radiological Transportation Impacts for Offsite Shipments by Waste Type ...	H.44
H.18	Non-Radiological Transportation Impacts for Offsite Shipments	H.45
H.19	Summary of Non-Radiological Impacts for Offsite Shipments by Waste Type (Fatalities)..	H.47
H.20	Estimated Doses and Impacts to MEIs	H.48
H.21	Summary of Impacts of Maximum Credible Accidents from DOE (1997b).....	H.49
H.22	Total Shipment Mileages by Shipment Origin	H.51
H.23	Latent Cancer Fatality Impacts by Shipment Origin	H.52
H.24	Non-Radiological Accident Impacts by Shipment Origin	H.53
H.25	Results of Sensitivity Study for Shifting TRU Waste Shipments from California to New York	H.57
H.26	Potential Incremental Transportation Impacts if West Valley TRU Waste were to be Shipped to Hanford	H.60
H.27	Total Potential HSW Transportation Impacts With and Without West Valley TRU Waste Shipments.....	H.62
H.28	Impacts of Transporting Construction and Backfill Materials.....	H.64
H.29	Route Characteristics for Transport Within Washington and Oregon.....	H.68
H.30	Offsite Shipping Volumes Used for Oregon and Washington Impacts Calculations	H.69
H.31	Impacts in Washington and Oregon from Shipments of Solid Waste to Hanford from Offsite and Shipments of TRU waste to WIPP	H.71
H.32	Impacts in Washington and Oregon by State from Offsite Shipments of Solid Wastes to and from Hanford.....	H.73
H.33	Hazardous Chemical Concentrations 100 m (109 yd) Downwind from Severe Transportation Accidents	H.75
H.34	Comparison of Offsite LLW and MLLW Volumes and Impacts Between the WM PEIS Information Package and HSW EIS	H.81
H.35	Comparison of Potential Transportation Impacts for Shipments of TRU Waste from Hanford from Hanford to WIPP	H.83
I.1	Hanford Site Biological Resources Management Resource Levels and Associated Definitions	I.3
I.2	Area C Plant Communities in Which Purple Mat, Crouching Milkvetch, and/or Stalked-Pod Milkvetch Were Observed.....	I.12
I.3	General Classes of Mitigation Actions and Biological Resource Levels of Concern to Which They Apply.....	I.20
I.4	Habitats and Species Subject to Mitigation Based on Existing Conditions and Current Mitigation Guidelines	I.26
I.5	Summary of Assumptions Used to Derive Abiotic Media Concentrations Used in Hanford and Hanford Plus Background Exposure Scenarios	I.30
I.6	Hanford and Hanford Plus Background Radionuclide Concentrations in Well Water, Pore Water, Sediment, Soil, and River Water for Each Time Period and Alternative Group	I.32
I.7	Hanford and Hanford plus Background Total Uranium Concentrations in Well Water, Pore Water, Sediment, Soil, and River Water for Each Time Period and Alternative Group	I.39
I.8	Ecological Contaminant Exposure Model Receptors	I.40
J.1	Applicable State Noise Limitations Based on Source and Receptor EDNA Designation	J.1

J.2	Estimated Distances of Attenuation by Octave Band for a 132-dBA Diesel Locomotive	J.2
K.1	Previously Conducted Cultural Resources Reviews.....	K.2
K.2	Cultural Resources Identified in Project Area	K.6
L.1	Comparison of Initial Assessment and HSW EIS Inventories.....	L.10

L.2	Comparison of Selected Values of Key Parameters Used in Source Term Release Models for the System Assessment Capability Analysis Described in this Appendix, the HSW EIS Analysis Described in Appendix G, and the Solid Waste Burial Ground Performance Assessments for 200 West and East Areas Described by Wood et al. (1995) and Wood (1996)	L.22
L.3	Technetium-99 Distribution Coefficients	L.24
L.4	Iodine Distribution Coefficients	L.24
L.5	Uranium Distribution Coefficients	L.25
L.6	Summary of Hydrogeologic Units Used in This Study	L.26
L.7	Barrier Design Lifetimes and Estimated Recharge Rates	L.27
L.8	Estimated Recharge Rates for Predominant Soil Types and Sediments with a Shrub-Steppe Plant Community	L.29
L.9	Estimated Recharge Rates for Native Soils and Backfilled Sediments without Vegetation..	L.29
L.10	Recharge Estimates for the Initial Assessment	L.30
N.1	Hanford Performance Management Plan Acceleration Goals	N.14